



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,836	02/11/2002	Henry Daniell	1466-PCT-US-00	7487
7590	02/04/2004		EXAMINER	
Schnader Harrison Segal & Lewis IP Department 36th Floor 1600 Market Street Philadelphia, PA 19103			KUBELIK, ANNE R	
			ART UNIT	PAPER NUMBER
			1638	

DATE MAILED: 02/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/807,836

Applicant(s)

DANIELL ET AL.

Examiner

Anne R. Kubelik

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-43 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions that are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 7 and 10-13, and claims 1-6, 9, 23-33, 39 and 41-43, in part, drawn to a plastid transformation vector encoding a sugar, plants transformed with the vector, and a method of conferring drought resistance on plants.

Group II, claims 14-19 and claims 1-6, 9, 23-33, 39 and 41-43, in part, drawn to a plastid transformation vector encoding a sugar alcohol, plants transformed with the vector, and a method of conferring drought resistance on plants.

Group III, claims 1-6, 23-33, 39 and 41-43, in part, drawn to a plastid transformation vector encoding a sugar derivative, plants transformed with the vector, and a method of conferring drought resistance on plants.

Group IV, claims 1-6, 23-33, 39 and 41-43, in part, drawn to a plastid transformation vector encoding an amino acid, plants transformed with the vector, and a method of conferring drought resistance on plants.

Group V, claims 1-6, 23-33, 39 and 41-43, in part, drawn to a plastid transformation vector encoding glycine betaine, plants transformed with the vector, and a method of conferring drought resistance on plants.

Art Unit: 1638

Group VI, claims 20-22 and 33-38, and claims 1-5, 8-9, 23-33, 39 and 41-43, in part, drawn to a plastid transformation vector encoding trehalose-6-phosphate synthase, plants transformed with the vector, and a method of conferring drought resistance on plants.

Group VII, claims 1-5, 8, 23-33, 39 and 41-43, in part, drawn to a plastid transformation vector encoding trehalose-6-phosphate phosphatase, plants transformed with the vector, and a method of conferring drought resistance on plants.

Group VIII, claims 1-5, 8, 23-33, 39 and 41-43, in part, drawn to a plastid transformation vector encoding *tps3*, plants transformed with the vector, and a method of conferring drought resistance on plants.

Group IX, claims 1-5, 8, 23-33, 39 and 41-43, in part, drawn to a plastid transformation vector encoding *tsl1*, plants transformed with the vector, and a method of conferring drought resistance on plants.

The inventions listed as Groups I-IX do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: They fail to share a special technical feature.

The technical feature linking the groups is a plastid transformation vector encoding an osmoprotectant or encoding a protein that produces an osmoprotectant. This feature is taught by Lebel et al (WO 99/46370, cited on the IDS), who teach plastid transformation vectors comprising a *trnV/rps12/7* intergenic region, which would be 5' and 3' parts of the "plastid DNA sequence inclusive of a spacer sequence", into which is inserted the plastid 16S rRNA or *clpP* promoter, the *aadA* selectable marker sequence, the *OtsA* or *OtsB* coding sequence, a restriction site, and the *rps16* or *clpP* 3' termination region, and transformation of the vectors into tobacco

Art Unit: 1638

plastids (pg 60-70). Therefore, claim 1, among others is not novel, and the technical feature linking the groups is not special.

Applicant is advised that for the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Sequence Rules

2. This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR 1.821(a)(1) and (a)(2). However, this application fails to comply with the requirements of 37 CFR 1.821 through 1.825.

Sequence identifiers are missing from pg 17, lines 18-21.

Full compliance with the sequence rules is required in response to this Office action. A complete response to this Office action must include both compliance with the sequence rules and a response to the issues set forth herein. Failure to fully comply with both of these requirements in the time period set forth in this Office action will be held to be non-responsive.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne R. Kubelik, whose telephone number is (571) 272-0801. The examiner can normally be reached Monday through Friday, 8:30 am - 5:00 pm.

Application/Control Number: 09/807,836

Page 5

Art Unit: 1638

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson, can be reached at (571) 272-0804. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Customer Service at (703) 308-0198.

Anne R. Kubelik, Ph.D.

January 30, 2004

A handwritten signature in cursive script, appearing to read "Anne R. Kubelik", with a long, sweeping horizontal line extending from the end of the signature.